

Release B CDR RID Report

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Priority

Section CG

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Figure Table

Category Name Ingest (INS) Design

Actionee Project (Schwaller)

Sub Category

Subject NESDIS (NOAA Satellite Active Archive [SAA]) interface

Description of Problem or Suggestion:

NOAA is not preparing a DAN or DR for data ECS ingests.

Originator's Recommendation

Project should renegotiate with NOAA to assure ICD includes requirement to have SAA provide ECS Ingest with DAN.

GSFC Response by: Matt Schwaller

GSFC Response Date 5/31/96

A data ingest interface that employs a DAN or DR is certainly preferable to one that does not. Indeed, the original version of the NOAA IRD included data flows for notification of availability of NOAA ancillary data, and notification of data receipt by ECS. At NOAA's insistence, these data flows were removed and are therefore not included in the Release B version of the NOAA IRD.

It should be noted that NOAA provides ECS access to a large amount ancillary data (in terms of data volume and number of products). Access to these data products are provided free of charge to NASA, as stipulated in a series of Memoranda of Understanding and related agreements between NASA and NOAA.

Although NOAA provides data to NASA in response to NASA requests, NOAA is justified in refusing to change its data system capabilities in response to NASA's requirements. In the words of the NASA/NOAA MOU, "a special agreement is necessary when the partner agency's requirements exceed the normally available services of the cooperative data center..." In this case, NOAA does not provide a DAN/DR for any of its data holdings, and NASA's requirement in this regard would clearly exceed NOAA's "normally available services." NASA could insist that NOAA provide a DAN/DR service, but in that case "NASA must fund ... the NOAA costs ... to develop, operate, and maintain the capability to provide operational data delivery where this capability either does not exist, or exists only partially."

Given the choice of using NOAA's existing services, or paying NOAA to improve them, ESDIS made the decision to employ a simple "polling" interface for access to NOAA's ancillary data. This is the interface that has been used by the DAO for access to NOAA NCEP (formerly NMC) data, and has been found to be satisfactory. (Note that the responsibility for this interface has now transitioned to the GSFC DAAC). Although this is not an ideal data interface, it is the ESDIS conclusion that it represents a prudent balance between paying to re-engineer NOAA's data system and the potential risk of lost or delayed ancillary data.

There are potential problems with the polling interfaces, but these rare glitches can be handled operationally. In particular, because NESDIS updates files "in place" (overwrites), there are 3 possible anomalous conditions:

a) ECS polls NESDIS and picks up a file before it is completely written. We have been assured, however, that NESDIS will only make the files visible in the directory after the file has been completely written, so that this problem will disappear.

b) ECS polls NESDIS too late to pick up an updated data file (e.g., if ECS is down for a sufficient time period to miss an update). This should happen very rarely, but when it does, DAAC personnel can check for missing files in the ECS metadata data base and contact NESDIS to obtain the missing files.

c) ECS polls NESDIS too early and picks up a file twice (e.g., if NESDIS is

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missing files.

c) ECS polls NESDIS too early and picks up a file twice (e.g., if NESDIS is down for a sufficient time period to miss their update). We can handle this the same as b) if we can get the file modification time. Otherwise, ECS may occasionally (rarely) get a duplicate file.

The above conditions should happen rarely because most NESDIS products are produced on a daily or weekly basis. Further, NESDIS data not is not on the critical processing path (i.e., there are backup ancillary data products for the NESDIS data) so even if the polling approach is not totally error-proof, the ECS processing will not suffer.

HAIS Response by:

HAIS Schedule

HAIS R. E. Project

HAIS Response Date

Status	Closed	Date Closed	6/7/96	Sponsor	Kobler
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***** Attachment if any *****
